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AUTHORITY		DATE
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REFERENCE DOCUMENTS	
Document	Title
IVV QM	NASA IV&V Quality Manual
IVV 16	Control of Records
NPR 1441.1	NASA Records Retention Schedules
S3001	Guidelines for Risk Management
T2006	Risk Review Template

If any process in this document conflicts with any document in the NASA Online Directives Information System (NODIS), this document shall be superseded by the NODIS document. Any reference document external to NODIS shall be monitored by the Process Owner for current versioning.

1.0 Purpose

The purpose of this system level procedure (SLP) is to establish a consistent and documented method of performing risk management within the NASA IV&V Program. The goals of risk management are to:

- Ensure that decisions between alternatives are made with an awareness of the risks associated with each
- Manage the aggregate risk that threatens the achievement of performance objectives
- Identify factors that are likely to impact NASA IV&V Program/Project objectives in the areas of performance (quality), schedule, and cost
- Determine mitigation approaches to limit the impact of the identified factors
- Communicate risk status and approaches for mitigation

2.0 Scope

The guidelines in this document apply to the Risk Management System (RMS) within the NASA IV&V Program, to include risk management process and tool . Risk management is a means to anticipate, mitigate, and control risks, and to make risk informed decisions to increase the overall success of the NASA IV&V Program.

3.0 Definitions and Acronyms

Official NASA IV&V roles and terms are defined in the Quality Manual.

3.1 Risk Management System (RMS)

The Risk Management System (RMS) within the NASA IV&V Program includes the functional organizations, risk process, and Risk Manager Tool (RMT). The RMS produces results through the interaction of the functional organizations, processes, and the RMT.

3.2 Acronyms

IMS	NASA IV&V Management System
NODIS	NASA Online Directives Information System
NPR	NASA Procedural Requirements
QM	Quality Manual
RMP	Risk Management Process
RMS	Risk Management System
RMT	Risk Manager Tool
RRB	Risk Review Board
SLP	System Level Procedure

4.0 Risk Management System (RMS)

The RMS process flow is depicted in section 4.2. The responsibilities and actions that shall be performed by process participants and use of the RMT are described in this document. Any information supplemental to a depicted process will appear after the diagram.

4.1 Risk Roles and Responsibilities

Everyone has some responsibility for risk management. However, there is an overall structure to the responsibility that starts with the IV&V Program Manager and flows down to the organizational units and the projects within those units.

The NASA IV&V Program Manager has overall responsibility for the execution of the NASA IV&V Program.

Lower level risk information is communicated at the IV&V Program Risk Review Board (RRB) meetings to provide status on risks being managed at that organizational level as well as to elevate risks when they cannot be addressed at that organizational level. The IV&V Program RRB also develops and manages its own programmatic and institutional risks.

The IV&V Program also assures that performance requirements assigned to the organizational units reflect appropriate tradeoffs between/among competing objectives and risks.

Each organizational unit within the IV&V Program has a functional lead. The Functional Leads have the overall responsibility of ensuring that risks are identified, documented in the RMT, tracked, and approved within their respective organizational units. Each organizational unit has an associated governing RRB. This RRB is led by the Functional Lead with support from the IV&V Program Risk Manager. The Functional Lead (or designee) and the IV&V Program Risk Manager (or designee) are mandatory attendees at a governing RRB.

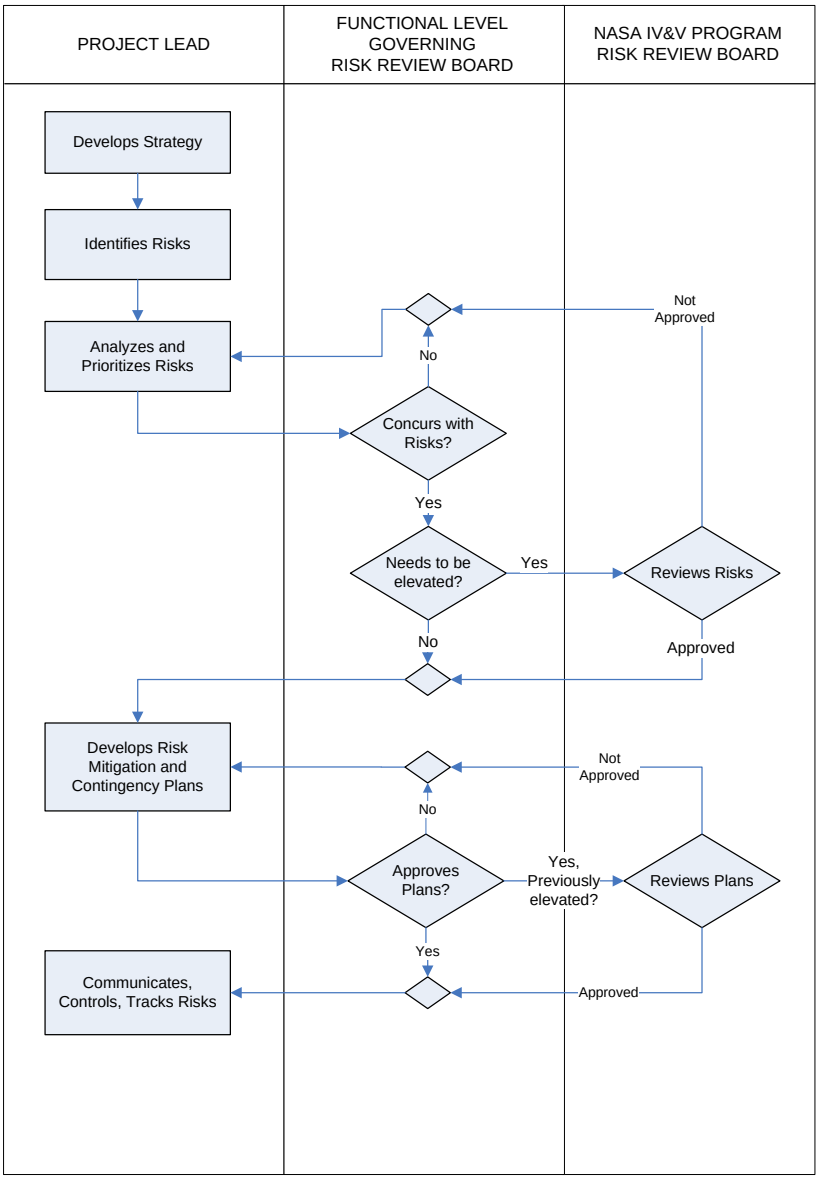
The Functional Leads are responsible for developing and maintaining a monthly Top Risk List. The Functional Leads are also responsible for

managing the top risks within their organizational unit, and for providing infrastructure and resources for risk management support.

The Project Lead is responsible for identifying, analyzing, monitoring, maintaining status in the RMT, and communicating risks in regard to his/her projects.

The Risk Management Lead is responsible for the RMS. In addition, the Risk Management Lead provides training on the implementation of the process and the RMT. The Risk Management Lead uses a metrics process to understand how well the process is working, and to improve the process when possible.

4.2 Risk Management Process (RMP)



The goal of risk management is to manage risks at a level where budget and resources can be managed. For specific information regarding risk management, see S3001, *Guidelines for Risk Management*.

4.3 Risk Manager Tool (RMT)

The RMT is the central repository for documenting risk status in the IV&V Program. All risks that fall within the scope of this SLP shall be documented in the RMT. An exception is for risks that are sensitive. Sensitive risks shall use the template T2006, *Risk Review Template*, and shall be stored by an appropriate civil service employee in a manner that properly restricts access on ECM. Procurement, Supervisory, or Legislative risks are some examples of possible sensitive risks.

In addition the RMT facilitates the communication, capture, tracking, and management of risk data in support of the RMP flow depicted in section 4.2. The RMT can be accessed via the IV&V Program Portal or directly at: http://risk.ivv.nasa.gov. To get access to the RMT notify SWAT by email at ivv-swat@lists.nasa.gov or by submitting a service request in JIRA. RMT training videos are available through the RMT itself under the 'Help' menu, or in Confluence at: http://confluence.ivv.nasa.gov:8090/display/SWAT/RiskManager.

5.0 Metrics

Any metrics associated with this SLP are established and tracked within the NASA IV&V Metrics Program.

6.0 Records

The following records will be generated or updated and filed in accordance with this SLP and IVV 16, *Control of Records*, and in reference to NASA Procedural Requirement (NPR) 1441.1, *NASA Records Retention Schedules.*

Record Name	Original	Vital	Responsible Person	Retention Requirement	Location
Risk	Y	N	Project Lead	Destroy when 7 yrs old (1/26.5A)	ECM System, and/or RMT
Risk Board Minutes/Actions	Y	N	Risk Management Lead	Destroy when 7 yrs old (1/26.5A)	ECM System

VERSION HISTORY				
Version	Description of Change	Rationale for Change	Author	Effective Date
Basic	Initial Release		Kenneth Costello	01/24/2008
A	Update terminology changed due to re-engineering process		Kenneth Costello	04/07/2008
B	Changed “IV&V Facility” to “IV&V Program”		Stephanie Ferguson	02/19/2009
C	Change document number from IVV 09-9 to IVV 22; update Section 6.0, *Records*		Kurt Kehl	04/22/2010
D	Added reference document precedence statement		Sara Cain	07/29/2010
E	Streamline and bring in line with the overall NASA requirements for risk management specifically with respect to risk informed decision making.		Kenneth Costello	09/27/2012
F	Add Risk Manager Tool (RMT) verbiage. Add sensitive risks to use T2006, *Risk Review Template*, and store on ECM.	PAR 2013-P-390. Integrate Risk Manager Tool (RMT).	Scott Kinney	01/22/2014